

#5

FIGURE 1. RENILLA RENIFORMIS POLYNUCLEOTIDE
SEQUENCE (SEQ ID NO.1)

R. ren: 1 ATGGTGAGTAAACAAATATTGAAGAACACTGGATTGCAGGAGATCATGTCGTTAAAGTGAATC 64

R. ren: 65 TGGAAGGTGAGTAAACAATCATGTGTTACAATGGAAGGTTGTGGAAAAGGAAATATT 124

R. ren: 125 TATTCGGAAACCAACTGGTCAGATCGTGCACAAAAGGGCTCCGCTTCCATTTGCAT 184

R. ren: 185 TTGATATTCCTCTCACCACTGGCTTCCAATACGGCAACCGTACATTACCGAATAACCGGAGG 244

R. ren: 245 ATATATCAGACTTTTATACAATCATTCCAGCGGGATTTGTATACGAAAGAACGTTGC 304

R. ren: 305 GTTACGAAGATGGTGGACTGGTTGAAATCGTCAGATATAAATTAAATCGAGGAGATGT 364

R. ren: 365 TTGCTCACAGAGTGGAAATATAAGGTAGTAACCTCCGAATGATGGTCCAGTGATGAAGA 424

R. ren: 425 AGACAATCACAGGATTACAACCTCGTCAAGTTGTATATGAACGATGGCGTCTGG 484

R. ren: 485 TTGGCCAAGTCATTCTGTTATAGATTAAACTCTGGCAAATTATTCGTGTACATGA 544

R. ren: 545 GAACACTGATGAAATCAAAGGGTAGTGAAGGATTTCCGAATACCATTCAAC 604

R. ren: 605 ATCGTTAGAGAAGACGTATGTGGAAGACGGAGGTTGTTGAGCAACACGAGACGCCA 664

R. ren: 665 TTGCTCAACTGACATCGCTGGGAAACCACTGGATCCTTACACGAATGGTTAA 720

FIGURE 2. RENILLA RENIFORMIS AMINO ACID SEQUENCE
(SEQ ID NO:2)

R. *reni*: 1 MSKQILKNTGLQEIMSFVNLEGVVNNHVFTMEGCGKGNILFGNQLVQIRVTKGAPLPFA 60

R. *reni*: 61 FDILSPAFQYGNRTFTKYPEDISDFFIQSFPAVFVYERTLRYEDGGLVEIRSDINLIEQM 120

R. *reni*: 121 FVYRVEYKGSNFPNDGPVMKKTITGLQPSFEVYVYMDGVLVGQVILVYRLNSGKFYSCHM 181

R. *reni*: 182 RTLMKSKGVVKDPEYHFIQHRLEKTYVEDGGFVEQHETAIAQLTSLGKPLGSLHEWV 238

FIGURE 3. POLYNUCLEOTIDE AND AMINO ACID SEQUENCES OF A HUMANIZED *R. RENIFORMIS* GFP.
(SEQ ID NOS: 3 and 4, respectively)

1 ATGGTGAGCAAGCAGATCCTGAAAGAACACCCGGCCTGCAGGAGATCATGAGCTTCAGGTG
M V S K Q I L 'K N T G L Q E I M S F K V

61 AACCTGGAGGGCGTGGTGAACAACCACGTGTTCACCATGGAGGGCTCGGGCAAGGGCAAC
N L E G V V N N H V F T M E G C G K G N

121 ATCCCTGTTCCGGCAACCAGCTGGTGCAGATCCGCCTGCAGCAAGGGGCCCTGCCCTTC
I L F G N Q L V Q I R V T K G A P L P F

181 GCCTTCGACATCCTGAGCCCCGCTTCCAGTACGGCAACCGCACCTCACCAAGTACCCC
A F D I L S P A F Q Y G N R T F T K Y P

241 "GAGGACATCAGCGACTTCTTCATCCAGAGCTTCCCCGCCGCTCGTGTACGAGCGCACC
E D I S D F F I Q S F P A G F V Y E R T

301 CTGGCCTACGAGGACGGCGGGCTGGTGGAGATCCGCAGCGACATCAACCTGATCGAGGAG
L R Y E D G G L V E I R 'S D I N L I E E

361 ATGTTCGTGTACCGCGTGGAGTACAAGGGCGCAACTTCCCCACGACGGCCCCGTGATG
M F V Y R V E Y K G S N F P N D G P V M

421 AAGAAGACCATCACCGGCCTGCAGCCCAGCTCGAGGTGGTGTACATGAACGACGGCGTG
K K T I T G L Q P S F E V V Y M N D G V

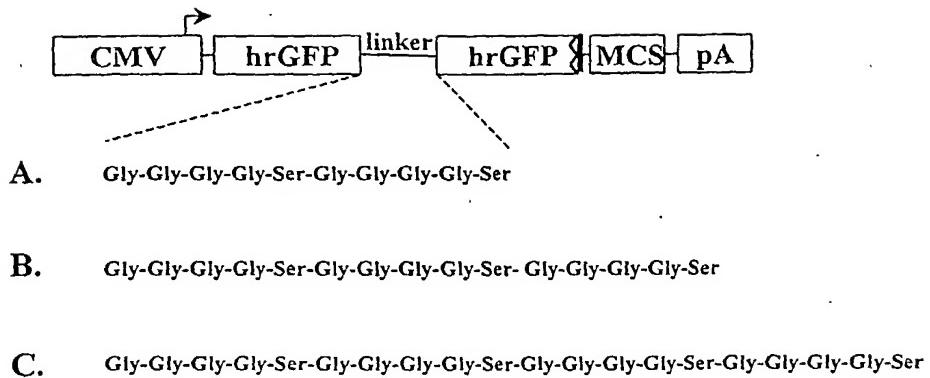
481 CTGGTGGGCCAGGTGATCCTGGTGTACCGCCTGAAACAGCGGCAAGTCTACAGCTGCCAC
L V G Q V I L V Y R L N S G K F Y S C H

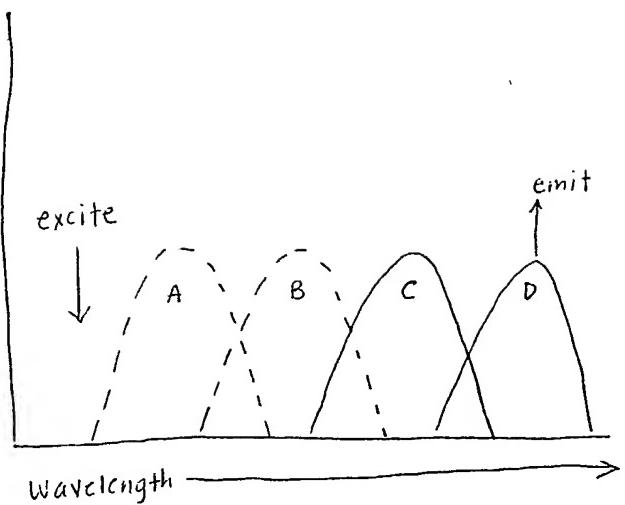
544 ATGCGCACCCCTGATGAAGAGCAAGGGCGTGGTGAAGGACTTCCCCGAGTACCAACTTCATC
M R T L M K S K G V V K D F P E Y H F I

604 CAGCACCGCCTGGAGAAGACCTACGTGGAGGACGGCGGCTCGTGGAGCAGCACGAGACC
Q H R L E K T Y V E D G G F V E Q H E T

664 GCCATGCCAGCTGACCAGCCTGGCAAGCCCTGGCAGCCTGCACGAGTGGGTGTA
A I A Q L T S L G K P L G S L H E W V -

Figure 4





A = donor excitation peak

B = donor emission

C = acceptor excitation

D = acceptor emission

FIGURE 5